

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A vector comprising a A-recombinant nucleic acid molecule comprising a vector useful for transfection or transduction of mammalian, e.g. human, cells, wherein said vector contains a nucleic acid insertion encoding an expressible hybrid polypeptide or protein which comprises a domain with a binding function and a domain with an effector function, wherein said domain with a binding function comprises a receptor binding domain, wherein said receptor binding domain is selected from the group consisting of receptor binding domain of epidermal growth factor, and receptor associated protein that binds to LDL receptor related protein (α 2-macroglobulin receptor).

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Original) A recombinant nucleic acid molecule according to Claim 1, wherein said domain with an effector function is an enzymatically active domain.

7. (Original) A recombinant nucleic acid molecule according to Claim 1, wherein said domain with an effector function has protease inhibitor activity.

8. (Currently amended) A recombinant nucleic acid molecule according to Claim 7, wherein said domain having protease inhibitor activity comprises a protease inhibitor or active part thereof, said protease inhibitor being selected from the group consisting of (bovine) pancreatic trypsin inhibitor, (bovine) spenic trypsin inhibitor, urinary trypsin inhibitor, tissue inhibitor of matrix metalloproteinase 1, tissue inhibitor of matrix metal loproteinase 2, tissue inhibitor of matrix metalloproteinase 3, and elastase inhibitor.

9. (Currently amended) A recombinant nucleic acid molecule according to Claim 7, wherein said domain having protease inhibitor activity comprises (amino acid residues 53 through 94 of) mature bovine pancreatic trypsin inhibitor.

10. (Original) A recombinant nucleic acid molecule according to Claim 7, wherein said domain having protease inhibitor activity comprises bovine splenic trypsin inhibitor.

11. (Original) A recombinant nucleic acid molecule according to Claim 7, wherein said domain having protease inhibitor activity comprises a tissue inhibitor of matrix metalloproteinases.

12. (Currently amended) A recombinant nucleic acid molecule according to Claim 1, wherein said domain with an effector function comprises two (~~an active part of two~~) or more different protease inhibitors, or two or more copies of (~~an active part of~~) a protease inhibitor, or both.

13. (Currently amended) A recombinant nucleic acid molecule according to Claim 1, wherein said vector is a viral vector ~~selected from the group consisting of viral and non-viral vectors~~ useful for transfection or transduction of mammalian cells.

14. (Original) A recombinant nucleic acid molecule according to Claim 1, wherein said vector is an adenovirus vector or a retrovirus vector useful for the transfection or transduction of human cells.

15. (Currently amended) A recombinant nucleic acid molecule according to Claim 1, wherein said vector is an adenovirus vector based on shuttle vector ~~pMAD5~~ pMAD5-ATF-BPTI.

16. (Original) A recombinant nucleic acid molecule according to Claim 1, wherein said nucleic acid insertion encoding an expressible hybrid polypeptide or protein is under the control of a cell- or tissue-specific promoter.

17. (Original) A recombinant nucleic acid molecule according to Claim 1, wherein said nucleic acid insertion encoding an expressible hybrid polypeptide or protein is under the control of an endothelial cell-specific promoter, or a vascular smooth muscle cell-specific promoter, or a liverspecific promoter.

18. (Cancel)

19. (Currently amended) A vector comprising a A recombinant nucleic acid molecule ~~comprising a vector~~ useful for transfection or transduction of mammalian, ~~e.g. human,~~ cells, wherein said vector contains a nucleic acid insertion encoding an expressible hybrid polypeptide or protein which comprises a receptor binding domain selected from the group consisting of ~~urokinase-receptor-binding domain of urokinase,~~ receptor binding domain of epidermal growth factor, receptor associated protein that binds to LDL Receptor related protein (α 2-macroglobulin receptor) and VLDL Receptor, and a domain with protease inhibitor activity which comprises a protease inhibitor or active part thereof, said protease inhibitor being selected from the group consisting of ~~(bovine)~~ pancreatic trypsin inhibitor, ~~(bovine)~~splenic trypsin inhibitor, urinary trypsin inhibitor, tissue inhibitor of matrix metalloproteinase 1, tissue inhibitor

of matrix metalloproteinase 2, tissue inhibitor of matrix metalloproteinase 3, and elastase inhibitor.

20. (Currently amended) A process for preventing local proteolytic activity, extracellular matrix degradation, cell migration, cell invasion, or tissue remodeling, comprising transfecting or transducing the cells involved or cells in their environment with a vector comprising a recombinant nucleic acid molecule as claimed in Claim 1 to obtain local expression of the hybrid polypeptide or protein encoded by said nucleic acid molecule, wherein said vector contains a nucleic acid insertion encoding an expressible hybrid polypeptide or protein which comprises a domain with a binding function and a domain with an effector function, wherein said domain with a binding function is selected from the group consisting of urokinase receptor binding domain of urokinase, receptor binding domain of epidermal growth factor, receptor associated protein that binds to LDL receptor related protein (α 2-macroglobulin receptor) and VLDL receptor and wherein the domain with an effector function has a protease inhibitor activity, thereby, preventing local proteolytic activity, extracellular matrix degradation, cell migration, cell invasion, or tissue remodeling.

21. (Currently amended) A process for producing a hybrid polypeptide or protein which comprises a domain with a binding function and a domain with an effector function, comprising transfecting or transducing mammalian cells with a recombinant nucleic acid molecule as claimed in Claim 1 to obtain expression of the hybrid polypeptide or protein encoded by said nucleic acid molecule, and optionally

recovering the hybrid polypeptide or protein produced, thereby, producing a hybrid polypeptide or protein.

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (New) A process according to claim 20, wherein said domain with an effector function comprises a protease inhibitor or active part thereof, said protease inhibitor being selected from the group consisting of bovine pancreatic trypsin inhibitor, bovine splenic trypsin inhibitor, urinary trypsin inhibitor, tissue inhibitor of matrix metalloproteinase 1, tissue inhibitor of matrix metalloproteinase 2, tissue inhibitor of matrix metalloproteinase 3, and elastase inhibitor.

27. (New) A process according to claim 20, wherein transfecting or transducing the cells involved or cells in their environment with a vector comprises transfecting or transducing cells of a vessel wall.

28. (New) A process according to claim 20, wherein transfecting or transducing the cells involved or cells in their environment with a vector comprises transfecting or transducing endothelial cells prone to migrate during angiogenesis.

29. (New) A process according to claim 20, for preventing restenosis and vessel wall remodeling after angioplasty.